

Notice of Allowability

Application No.

10/053,772

Applicant(s)

SAKAMOTO ET AL.

Examiner

John R. Cottingham

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2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed on 1/24/02.
2. ☒ The allowed claim(s) is/are 1-3.
3. ☒ The drawings filed on 24 January 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: the prior art of record neither teaches nor suggests all of the claimed subject matter of claim 1 including a step of waiting for an interrupt of the vertical synchronization signal which serves as a trigger pulse, and transitioning to a fourth step when the interrupt is generated, wherein a video detector calculates data from one screen of video at CLK-DLY for use in an automatic adjustment, and transfers video detection data (WDEO-DATAICLK-DLYI) at CLK-DLY to a video detection data memory when the interrupt is generated; a sixth step of reading video detection data (WDEO-DATAICLK-DLY- 1)) from said video detection data memory by said CPU, holding the read video detection data in a RAM of said CPU as optimal phase determination data 'at each phase set value, and returning again to said third step when a processing at this sixth step is completed. The prior art of record neither teaches nor suggests all of the claimed subject matter of claim 2 including a clock pulse generator for generating a clock pulse from a horizontal synchronization signal, said analog video input signal being sampled with said clock pulse; and a phase control data memory for holding the phase control data from said CPU, said phase control data memory being triggered by a vertical synchronization signal to transfer the phase control data to said phase controller. The prior art of record neither teaches nor suggests all of the claimed subject matter of claim 3 including a step of waiting for an interrupt of a vertical synchronization signal which serves as a trigger pulse, and transferring phase control data (CLK-DLY=O) from said phase control data memory to a phase controller when the interrupt is generated; and

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the step of a seventh step of reading video detection data (WDEO-DATAICLK+DLY-X) from said video detection data memory holding the read video detection data in a RAM of said CPU as optimal phase determination data at each phase set value, returning again to said fourth step when a processing at this seventh step is completed. The prior art shows, such as Hirakawa et al. U.S. Patent Application Publication 200/0061675, show the horizontal and vertical synchronization signals both go through a PLL and the vertical synchronization signal does not go through the CPU. Lee et al. U.S. Patent Application Publication 2003/0016199 shows both the horizontal and vertical synchronization signals both go through the same timing control unit. Takahashi et al. U.S. Patent 5,604,513 shows both the horizontal and vertical synchronization signals both go through the same control signal generator.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Cottingham whose telephone number is (571) 272-7079. The examiner can normally be reached on Monday - Thursday, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John R. Cottingham
Primary Examiner
Art Unit 2116

jrc